

## MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool BASIN Formation DAKOTA County BIO ABILEA  
Initial X Annual \_\_\_\_\_ Special \_\_\_\_\_ Date of Test 2-6-62  
Company SKELLY OIL COMPANY Lease JICARILLA "B" Well No. 22  
Unit B Sec 4 Twp. 24N Rge. 9W Purchaser \_\_\_\_\_  
Casing 4 1/2" Wt. 18.5# I.D. 4.052 Set at 7152' Perf. 6964' To 7022'  
Tubing 2 3/8" Wt. 4.7# I.D. 1.995 Set at 7012' Perf. 7012' To \_\_\_\_\_  
Gas Pay: From 6964' To 7022' L 7612' xG .700 -GL 4908' Bar.Press. 12.0  
Producing Thru: Casing \_\_\_\_\_ Tubing X Type Well Single - Gas  
Date of Completion: 2-6-62 Packer None Single-Bradenhead-G. G. or G.O. Dual  
Reservoir Temp. \_\_\_\_\_

## OBSERVED DATA

Tested Through (111111) (Choke) (111111) Type Taps \_\_\_\_\_

No.	Flow Data			Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h <sub>w</sub>	Temp. °F.	Press. psig	Temp. °F.	
SI								
1.		<u>3/4"</u>	<u>149</u>		<u>60</u>	<u>149</u>	<u>60</u>	<u>3 Hours</u>
2.								
3.								
4.								
5.								

## FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wpf}}$	Pressure psia	Flow Temp. Factor F <sub>t</sub>	Gravity Factor F <sub>g</sub>	Compress. Factor F <sub>pv</sub>	Rate of Flow Q-MCFPD @ 15.025 psia
1.	<u>12.3650</u>		<u>161</u>	<u>1.0000</u>	<u>0.9258</u>	<u>1.0000</u>	<u>1843</u>
2.							
3.							
4.							
5.							

## PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio \_\_\_\_\_ cf/bbl.  
Gravity of Liquid Hydrocarbons \_\_\_\_\_ deg.  
P<sub>c</sub> \_\_\_\_\_ (1-e<sup>-s</sup>)

Specific Gravity Separator Gas \_\_\_\_\_  
Specific Gravity Flowing Fluid \_\_\_\_\_  
P<sub>c</sub> 2324 P<sub>c</sub> 5401

No.	P <sub>w</sub> P <sub>t</sub> (psia)	P <sub>t</sub> <sup>2</sup>	F <sub>c</sub> Q	(F <sub>c</sub> Q) <sup>2</sup>	(F <sub>c</sub> Q) <sup>2</sup> (1-e <sup>-s</sup> )	P <sub>w</sub> <sup>2</sup>	P <sub>c</sub> <sup>2</sup> -P <sub>w</sub> <sup>2</sup>	Cal. P <sub>w</sub>	P <sub>w</sub> P <sub>c</sub>
1.						<u>274.6</u>	<u>5126.4</u>		<u>.225</u>
2.									
3.									
4.									
5.									

Absolute Potential: 1917 MCFPD; n 0.75

COMPANY SKELLY OIL COMPANY  
ADDRESS P. O. BOX 516, FARMINGTON, NEW MEXICO  
AGENT and TITLE William Singley PRODUCTION ENGINEER  
WITNESSED \_\_\_\_\_  
COMPANY \_\_\_\_\_

REMARKS



## INSTRUCTIONS

This form is to be used for reporting multi-point back pressure tests on gas wells in the State, except those on which special orders are applicable. Three copies of this form and the back pressure curve shall be filed with the Commission at Box 871, Santa Fe.

The log log paper used for plotting the back pressure curve shall be of at least three inch cycles.

## NOMENCLATURE

$Q$  = Actual rate of flow at end of flow period at W. H. working pressure ( $P_w$ ).  
MCF/da. @ 15.025 psia and 60° F.

$P_c$  = 72 hour wellhead shut-in casing (or tubing) pressure whichever is greater.  
psia

$P_w$  = Static wellhead working pressure as determined at the end of flow period.  
(Casing if flowing thru tubing, tubing if flowing thru casing.) psia

$P_t$  = Flowing wellhead pressure (tubing if flowing through tubing, casing if flowing through casing.) psia

$P_f$  = Meter pressure, psia.

$h_w$  = Differential meter pressure, inches water.

$F_g$  = Gravity correction factor.

$F_t$  = Flowing temperature correction factor.

$F_{pv}$  = Supercompressibility factor.

$n$  = Slope of back pressure curve.

Note: If  $P_w$  cannot be taken because of manner of completion or condition of well, then  $P_w$  must be calculated by adding the pressure drop due to friction within the flow string to  $P_t$ .